

as *T. coulteri* A. Gray and as *Scrophularia parviflora* Woot. & Standl.

Citations: TEXAS: Travis Co.: *Albers & Haskell 49278* (Au--262712); *Warnock 45-14* (Au--1659311). Uvalde Co.: *Shreve 9917* (F--photo of type, Mi--type, N--isotype, N--photo of type, Sg--photo of type, Z--photo of type). ARIZONA: Gila Co.: *Collom s.n.* [Barnhart Pass] (Mi).

ADDITIONAL NOTES ON THE GENUS *VITEX* XVIII

Harold N. Moldenke

VITEX Tourn.

Additional & emended bibliography: Sandm. in L., *Amoen. Acad.* 5: 380. 1759; Neck., *Elem. Bot.* 1: 353. 1790; Roxb., *Hort. Beng.*, imp. 1, 46 & [95]. 1814; Poir. in Lam., *Tabl. Encycl. Méth. Bot.* 3: pl. 541, fig. 1 & 2 (1819) and 3: 56. 1823; Loud., *Hort. Brit.*, ed. 1, 246 & 529 (1830) and ed. 2, 246 & 529. 1832; Roxb., *Fl. Ind.*, ed. 2, imp. 1, 3: 60--75. 1832; Blanco, *Fl. Filip.*, ed. 3, 513--517. 1837; G. Don in Loud., *Hort. Brit.*, ed. 3, 246 & 529. 1839; G. Don in Sweet, *Hort. Brit.*, ed. 3, 550--551. 1839; Endl., *Gen. Pl.* 2: 1501. 1841; A. L. Juss. in Orbigny, *Dict. Univ. Hist. Nat.* 13: 185. 1849; Miq., *Fl. Ind. Bat. Suppl.* 1: 95, 242, & 567--568. 1860; Peters, *Naturwiss. Reise Mossamb.* 6 (1): *Bot.* 256 & 265--266. 1861; Ulrich, *Internat. Wörterb.*, ed. 1, 254. 1871; Pritz., *Thes. Lit. Bot.*, imp. 1, 245. 1872; Brandis, *Forest Fl. Northw. Cent. India* 369--370 & 577. 1874; Firminger, *Man. Gard. India*, ed. 3, 326 & 620. 1874; Pfeiffer, *Nom. Bot.* 1 (2): 1592--1593 & 1836 (1874), 2 (1): 24 & 25 (1874), and 2 (2): 1569, 1570, 1593, & 1605. 1874; Roxb., *Fl. Ind.*, ed. 2, imp. 2, 481--483. 1874; Ulrich, *Internat. Wörterb.*, ed. 2, 254. 1875; Naves & Fern.-Villar in Blanco, *Fl. Filip.*, ed. 3, 6: pl. 226--228 & 427. 1878; Boiss., *Fl. Orient.*, imp. 1, 4: 535. 1879; Naves & Fern.-Villar in Blanco, *Fl. Filip.*, ed. 3, 4: 159--160. 1880; Franch., *Pl. David.*, imp. 1, 1: 232. 1884; Hillebrand, *Fl. Hawai. Isls.*, imp. 1, 340 & 342. 1888; Stahl, *Estud. Fl. Puerto Rico*, ed. 1, 3: 287, 296--297, & 371. 1888; Forbes & Hemsl., *Journ. Linn Soc. Lond. Bot.* 26 [Ind. Fl. Sin. 2]: 257--259. 1890; Baill., *Hist. Pl.* 11: 85--88, 94, 95, 110, 112, & 116, fig. 93--96. 1891; J. C. Willis, *Dict. Flow. Pl.*, ed. 2, 604 & 608. 1903; Post & Kuntze, *Lexicon* 589 & 688. 1904; J. C. Willis, *Dict. Flow. Pl.*, ed. 3, imp. 1, 621 & 625. 1908; D. H. Scott in Solered., *Syst. Anat. Dicot.* [transl. Boodle & Fritsch] 2: 1021 & 1022. 1908; Stopes, *Cat. Mesoz. Pl.* 225. 1913; J. C. Willis, *Dict. Flow. Pl.*, ed. 3, imp. 2, 621 & 625. 1914; Thonner, *Flow. Pl. Afr.* 470. 1915; R. E. Fries, *Wiss. Ergebn. Schwed. Rhodes.-Kong. Exped. Bot.* 2 (2): 273--274. 1916; Saxton & Sedgewick, *Rec. Bot. Surv. India* 7: 291.

- 1918; E. D. Merr., *Bibl. Enum. Born. Pl.* 5: 513--515. 1921; J. C. Willis, *Dict. Flow. Pl.*, ed. 5, 678 & 682. 1925; Thakar, *Pl. Cutch.* 223. 1926; E. D. Merr., *Univ. Calif. Publ. Bot.* 15: 263 & 264. 1927; Ewart, *Fl. Vict.* 973. 1930; Funke, *Ann. Jard. Bot. Buitenz.* 41: 55. 1930; Marloth, *Fl. S. Afr.* 3: 146. 1932; A. W. Hill, *Ind. Kew. Suppl.* 8: 119. 1933; Junell, *Symb. Bot. Upsal* 1 (4): 93--94, 98, 132, 199--200, & 205. 1934; Bally, *Kew Bull. Misc. Inf.* 1937: 24. 1937; Stahl, *Estud. Fl. Puerto Rico*, ed. 2, 3: 287, 296--297, & 371. 1937; Fletcher, *Kew Bull. Misc. Inf.* 1937: 74 & 75 (1937) and 1938: 401, 405--409, & 431--437. 1938; Chun, *Sinensia* 4: 268. 1940; Kosterm., *Reinwardtia* 1: 75--80, 82, 84--90, 92--97, 99, 100, 102--104, & 106. 1951; J. C. Willis, *Dict. Flow. Pl.*, ed. 6, 678 & 682. 1951; Thakar, *Fl. Barda* 585. 1952; Patel, *Syst. List Trees* 20. 1953; Bean in Chittenden, *Dict. Gard.* 4, imp. 1, 2249 & 2250. 1956; G. Taylor, *Ind. Kew. Suppl.* 12: 141 & 151. 1959; Duthie, *Fl. Upper Gang. Pl.*, ed. 2, 2: 90. 1960; Turrill, *Curtis Bot. Mag.* 173: pl. 355 in textu. 1960; Santapau, *Journ. Gujarat Res. Soc.* 17: 39. 1962; Boiss., *Fl. Orient.*, imp. 2, 4: 535. 1964; Imbesi, *Ind. Piante* 129 & 704--705. 1964; Puri, Jain, Mukerjee, Sarup, & Kotwal, *Rec. Bot. Surv. India* 19: 107. 1964; Banerji, *Rec. Bot. Surv. India* 19: 75. 1965; Bean in Chittenden, *Dict. Gard.*, imp. 2, 4: 2245 & 2250. 1965; Airy Shaw in J. C. Willis, *Dict. Flow. Pl.*, ed. 7, 32, 40, 205, 245, 408, 409, 654, 687, 770, 932, 944, 1148, 1173, 1176, 1184, & 1188. 1966; Chavan & Oza, *Fl. Pavagadh* 187. 1966; Santapau, *Fl. Saurashtra* 41. 1966; Stafleu, *Tax. Lit.* 355--356. 1967; Franch., *Pl. David.*, imp. 2, 1: 232. 1970; Hatusima & Yoshinaga, *Bull. Fac. Agr. Kagosh. Univ.* 2: 93 & 109, pl. 15 (2 & 3). 1970; Patel, *Forest Fl. Gujarat* 25 & 230--231. 1971; Roxb., *Fl. Ind.*, ed. 2, imp. 3, 481--483. 1971; Pritz., *Thes. Lit. Bot.*, imp. 2, 245. 1972; Guinea Lopez & Ceballos Jimenez, *Elenco Fl. Vasc. Espan.* 202. 1974; Hocking, *Excerpt. Bot. A.* 23: 290, 291, & 389. 1974; Vitokumar, *Hindustani Times* Feb. 17, p. 4. 1974; Srivastava, *Fl. Gorak.* 259. 1976; Cramer, *Sri Lankan Forest.*, ser. 2, 13: 14. 1977; Ozenda, *Fl. Sahara*, ed. 2, 405--407. 1977; Ratter, Askew, Montgomery, & Gifford, *Revist. Bras. Bot.* 1: 51, 53, & 55. 1978; Dombrowski & Neto, *Inform. Pesq.* 3 (21): 80 & 81. 1979; Holm, Pancho, Herberger, & Plucknett, *Geogr. Atlas World Weeds* 385. 1979; Klein, *Sellowia* 31: 163. 1979; Kummrow, *Bol. Mus. Bot. Munic.* 38: 14. 1979; Li, Nan-fang 14, 100--103, & 168, fig. 29 & 30. 1979; Tans & Iltis, *Trans. Wisc. Acad. Sci.* 67: 79. 1979; Barcelo, *Fl. Mallorca* 4: [8]--10 & 33. 1980; Fosberg, Otobed, Sacht, Oliver, Powell, & Canfield, *Vasc. Pl. Palau* 38. 1980; Gentry, *Phytologia* 46: 209. 1980; Jayasuriya, *Stud. Fl. Ecol. Ritig.* 197--198. 1980; Liu & Yu, *Act. Bot. Yunnan.* 2: 455. 1980; Mold., *Phytologia* 46: 10--43, 57, 400, 464--494, 506, 510, & 512 (1980) and 47: 17, 18, 21, 22, 25, 28, 29, 31, 34, 38, 39, 41, & 42. 1980; Patunkar, *Grasses Marathwada* 10 & 297. 1980; Polunin, *Fls. Greece Balk.* 387 & 545. 1980; Rogerson & al., *Bull. Torrey Bot. Club* 107: 265. 1980; Roxb., *Hort. Beng.*, imp. 2, 46 & [95]. 1980; Seymour, *Phytol. Mem.* 1: 246. 1980; Strid, *Wild Fls. Mt. Olympus* 4 & [5], pl. 2, fig. 2. 1980; Vogel, *Seedl. Dicot.* 92,

106, & 465. 1980; Wiggins, Fl. Baja Calif. 535, fig. 503. 1980; Duncan & Kortesz, Vasc. Fl. Ga. 111. 1981; Hillebrand, Fl. Haw. Isls., imp. 2 [Cramer, Repr. U. S. Floras 9:] 340 & 342. 1981; Hocking, Phytologia 47: 484. 1981; Hu, Enum. Chin. Mat. Med. 18, 45, 69, 72, & 219. 1981; Mold., Phytologia 47: 331, 336, 355, & 512 (1981) and 48: 123, 124, & 291. 1981; Thomas & Allen, Contrib. Herb. North. La. Univ. 2: 38 & 42. 1981.

Brooker & Cooper (1961) assert that "The chemical constituents of *Vitex* species have been listed by Cambie (1959). The most notable is vitexin. The heartwood contains beta sitosterol.... while beta carotene and p-hydroxyl benzoic acid occur in the leaves. The methyl ester of this last component has been patented as a germicide (Extra Pharmacopoeia p. 104)."

The Peters (1861) reference in the literature of this genus is dated "1862" in error by Pritzell (1872).

The Commonwealth Institute Index of Fungi (1972) lists the following fungi as attacking *Vitex*: *Cercospora agarwalii*, *Exosporium viticis*, *Hormisciomyces bellus*, *Irenopsis viticifolii*, *Linochora viticis*, *Massaria kamatii*, *Phyllosticta ragatensis*, and *Zeta viticifolii*.

It is well worth noting here that Post & Kuntze (1904) divided the genus *Vitex* as follows:

Sect. 1. *Lagondium* (Rumpf) Kuntze [*Lagondium* Rumpf, 1743, *Euagnus* Schau., 1847]

Subsect. 1. *Mailelou* (Adans.) Kuntze [*Mailelou* Adans., 1763, *Agnus-castus* Endl., 1838, *Terminales* Briq., 1892]

Subsect. 2. *Limia* Endl. [*Axillares* Briq., 1892]

Subsect. 3. *Glomerovitex* Kuntze [*Glomerulosae* Briq., 1892]

Sect. 2. *Pyrostoma* (G. F. W. Mey.) Schau. [*Pyrostoma* G. F. W. Mey., 1818, *Casarettoa* Walp., 1844]

Sect. 3. *Chrysomallum* (Thouars) Schau.

Sect. 4. *Glossocalyx* G. B. Clarke

The *S. G. Beck 1651*, *Keel S.33*, *Liesner & González 9451*, *Miranda 8471/26*, and *Silva 2820*, distributed as *Vitex*, actually are not verbenaceous.

VITEX AGNUS-CASTUS L.

Additional synonymy: *Vitex argus-castus* Rawson, in herb.

Additional & emended bibliography: Poir. in Lam., *Encycl. Méth. Bot.* 3: pl. 541, fig. 1. 1819; Loud., *Hort. Brit.*, ed. 1, 246. 1830; Sweet, *Hort. Brit.*, ed. 2, 416. 1830; Loud., *Hort. Brit.*, ed. 2, 246. 1832; G. Don in Loud., *Hort. Brit.*, ed. 3, 246. 1839; G. Don in Sweet, *Hort. Brit.*, ed. 3, 551. 1839; Ulrich, *Internat. Wörterb.*, ed. 1, 254. 1871; Brandis, *Forest Fl. N.W. Cent. India* 370. 1874; Ulrich, *Internat. Wörterb.*, ed. 2, 254. 1875; Baill., *Hist. Pl.* 11: 85--86 & 94, fig. 93--96. 1891; D. H. Scott in *Solered.*, *Syst. Anat. Dicot.* [transl. Boodle & Fritsch] 1: 631 & 634 (1908) and 2: 1022. 1908; Kosterm., *Reinwardtia* 1: 78, 79, 100, & 106. 1951; Bean in Chittenden, *Dict. Gard.*, imp. 1, 4: 2249. 1956; Imbesi, *Ind. Piante* 129 & 704--705. 1964; Bean in Chittenden, *Dict. Gard.*, imp. 2, 4: 2249. 1965; Guinea Lopez & Ceballos Jimenez, *Elenco Fl. Vasc. Espan.* 202. 1974; Ozenda, *Fl.*

Sahara, ed. 2, [406] & 407, fig. 149. 1977; Holm, Pancho, Herberger, & Plucknett, Geogr. Atlas World Weeds 385. 1979; Barcelo, Fl. Mallorca 4: [8]--10. 1980; Mold., Phytologia 45: 479--480. 1980; Polunin, Fls. Greece Balk. 387. 1980; Strid, Wild Fls. My. Olympus 4, [5], & 298, pl. 2, fig. 2. 1980; Duncan & Kortesz, Vasc. Fl. Ga. 111. 1981; Thomas & Allen, Contrib. Herb. North. La. Univ. 2: 29 & 42. 1981.

Additional & emended illustrations: Poir. in Lam., Tabl. Encycl. Meth. Bot. 3: pl. 541, fig. 1, 1819; Baill., Hist. Pl. 11: 85, fig. 93--96. 1892; Ozenda, Fl. Sahara, ed. 2, [406], fig. 149. 1977; Barcelo, Fl. Mallorca 4: [8] & 33 (in color). 1980; Strid, Wild Fls. Mt. Olympus [5], pl. 2, fig. 2 (in color). 1980.

Butterwick & Lamb encountered this plant on a Texas floodplain and Fletcher found it growing along railroad tracks in Louisiana. The Hill collection, cited below, is from a plant cultivated in a Dioscorides garden and said to have been 6--8 feet tall with "lilac-purple" corollas. The *Braley s.n.* [3 Oct. 1968] and *Wroten 646*, cited below, bear no indications on their accompanying labels that they were gathered from cultivated plants, but I am assuming that they were. On the other hand, *Thomas & al. 33417*, collected in "lawn beside alley", may have been from cultivated material or possibly from naturalized ones.

Strid (1980) informs us that in the Mount Olympus area of Greece this species "forms a dense brush-wood on the dunes a short distance from the sea, often together with *Paliurus spina-christi*."

The *Liogier 16870*, distributed as typical *V. agnus-castus* L., actually represents *f. caerulea* (Rehd.) Mold., while *Dooley 488*, *Hamlin s.n.* [4-16-72], and *P. White 175 & s.n.* [3 July 1969] are *V. negundo* L.

Additional citations: MARYLAND: Montgomery Co.: *Rawson s.n.* [Silver Spring, July 1, 1969] (W--2010020). NORTH CAROLINA: Rockingham Co.: *Leonard & Russ 2562* (Ne--33950). LOUISIANA: Caddo Par.: *Overby 368* (Ne--115767). Caldwell Par.: *Shell 127* (Ne--33944); *Thomas, Marx, & al. 66421* (Ne--160982). Concordia Par.: *Lindley & Lindley s.n.* [23 May 1976] (Ne--123459). Franklin Par.: *D. Dixon 3735* (Ne--176021); *W. Fletcher 158* (Ne--152166). Ouachita Par.: *P. Johnson s.n.* [11/10/68] (Ne--13750); *Scarborough 749* (Ne--33947); *Thomas & al. 33417* (Ne--65401). Winn Par.: *P. W. Parker s.n.* [17 July 1971] (Ne--33941). TEXAS: Cameron Co.: *Crow s.n.* [15 August 1969] (Ne--33951). Llano Co.: *Butterwick & Lamb 2890* (Au). Van Zandt Co.: *R. D. Thomas 25104* (Ne--66811). VIRGIN ISLANDS: St. Croix: *Ørsted s.n.* (N). CULTIVATED: District of Columbia: *S. R. Hill 9708* (N). Florida: *P. O. Schallert 365* (Go). Louisiana: *Braley s.n.* [3 Oct. 1968] (Ne--33946); *Lieux 135* (Ne--33945); *Wroten 646* (Ne--33948). Texas: *Bratz s.n.* [Elkhart, 8/30/61] (N).

VITEX AGNUS-CASTUS f. ALBA (West.) Rehd.

Additional synonymy: *Vitex agnus-castus* var. *albiflorus* Palau-Ferrer ex Barcelo, Fl. Mallorca 4: 9. 1980.

Additional & emended bibliography: Bean in Chittenden, Dict. Gard., imp. 1, 4: 2249 (1956) and imp. 2, 4: 2249. 1965; Mold., Phytologia 44: 340--341. 1979; Barcelo, Fl. Mallorca 4: 9. 1980;

Mold., Phytol. Mem. 2: 24, 54, 195, 197, 198, 255, 366, 456, 457, & 588. 1980.

Barcelo (1980) reports this form of the species from Majorca.

VITEX AGNUS-CASTUS f. *CAERULEA* (Rehd.) Mold.

Additional bibliography: Mold., Phytologia 44: 341. 1979; Mold., Phytol. Mem. 2: 54, 54, 96, 181, 196--198, 366, 456, 457, & 588. 1980.

Liogier describes this plant as shrubby, 1.5 m. tall, branched from the base, with blue "flowers" [corollas], and found it naturalized in thickets near the seashore in the Dominican Republic, flowering in November.

Additional citations: HISPANIOLA: Dominican Republic: A. H. Liogier 16870 (N).

VITEX AGNUS-CASTUS var. *DIVERSIFOLIA* (Carr.) Schelle

Additional bibliography: Poir. in Lam., Tabl. Encycl. Méth. Bot. 3: pl. 541, fig. 2. 1819; Mold., Phytologia 44: 338 & 342. 1979; Mold., Phytol. Mem. 2: 366, 456, 458, & 588. 1980.

Additional illustrations: Poir. in Lam., Tabl. Encycl. Méth. Bot. 3: pl. 541, fig. 2. 1819.

VITEX AGNUS-CASTUS f. *LATIFOLIA* (Mill.) Rehd.

Additional & emended bibliography: Loud., Hort. Brit., ed. 1, 246 (1830) and ed. 2, 246. 1832; G. Don in Loud., Hort. Brit., ed. 3, 246. 1839; G. Don in Sweet, Hort. Brit., ed. 3, 551. 1839; Mold., Phytologia 44: 338, 339, & 342--344. 1979; Mold., Phytol. Mem. 2: 19, 21, 43, 195--199, 254, 255, 366, 369, 456, 457, & 588. 1980.

Additional citations: CULTIVATED: North Carolina: J. F. Matthews s.n. [July 1, 1974] (Ne--114122).

VITEX AGNUS-CASTUS var. *PSEUDO-NEGUNDO* Hausskn.

Additional bibliography: Mold., Phytologia 45: 480. 1980; Mold., Phytol. Mem. 2: 198, 200, 254--256, 366, 456--459, & 588. 1980.

Recent collectors have encountered this plant in dry riverbeds in deserts and semideserts, at 2700 feet altitude, describing it as 1 m. tall. The corollas are said to have been "blue" on Andersen & Petersen 443.

Additional citations: AFGHANISTAN: Andersen & Petersen 443 (Go); Noel 30 (Go).

VITEX ALTISSIMA L. f.

Additional synonymy: *Vitex altissima* f. *altissima* Mold. ex Jayasuriya, Stud. Fl. Ecol. Ritig. 197. 1980.

Additional & emended bibliography: Roxb., Hort. Beng., imp. 1, 46. 1814; Loud., Hort. Brit., ed. 1, 246 (1830) and ed. 2, 246. 1832; Roxb., Fl. Ind., ed. 2, imp. 1, 3: 71--72. 1832; G. Don in Sweet, Hort. Brit., ed. 3, 551. 1839; Roxb., Fl. Ind., ed. 2, imp. 2, 482. 1874; Naves & Fern.-Villar in Blanco, Fl. Filip., ed. 3, 6: pl. 227 (1878) and ed. 3, 4: 160. 1880; Roxb., Fl. Ind., ed. 2, imp. 3, 482. 1971; Jayasuriya, Stud. Fl. Ecol. Ritig. 197--198.

1980; Mold., Phytol. Mem. 2: 265, 269, 271, 290, 318, 327, 366, 422, 456, 459, 460, & 588. 1980; Mold., Phytologia 45: 480. 1980; Roxb., Hort. Beng., imp. 2, 46. 1980.

Additional illustrations: Naves & Fern.-Villar in Blanco, Fl. Filip., ed. 3, 6: pl. 227. 1878.

Jayasuriya (1980) describes this species as a small to large, deciduous, stocky tree, the trunk to 1.6 m. in diameter at breast height, frequent in all the lowlands of Sri Lanka, flowering from June to October, and called "kaha milla", "milla", "miyan-milla", and "nियan milla". He cites *Huber 403* and *Jayasuriya 1262* from Sri Lanka.

VITEX ALTISSIMA f. juv. *ALATA* (Willd.) Mold.

Additional & emended bibliography: Roxb., Hort. Beng., imp. 1, 46. 1814; G. Don in Sweet, Hort. Brit., ed. 3, 551. 1839; Mold., Phytologia 45: 480. 1980; Mold., Phytol. Mem. 2: 265, 269, 318, 366, 457, 460, & 588. 1980; Roxb., Hort. Beng., imp. 2, 46. 1980.

Ripley refers to this plant as a "common tree" in sandy soil, at 61 m. altitude, and his collection was gathered as voucher in primate studies conducted by him in Sri Lanka. It consists of sapling (sterile) leaves on which the petiolar wings are just as narrow as they are on *Nootboom 3204*, which is in fruit.

Additional citations: SRI LANKA: *Ripley 246* (W--2942594).

VITEX ALTISSIMA f. *SUBGLABRA* Thwaites

Additional bibliography: Mold., Phytologia 45: 480. 1980; Mold., Phytol. Mem. 2: 269, 366, 457, & 588. 1980.

Recent collectors describe this plant as a tree, 15--30 m. tall, the trunk 20--40 cm. in diameter at breast height, and encountered it in primary and wet evergreen forests and the edges of rainforests, at 150--900 m. altitude, flowering from August to October, and fruiting from September to November.

The corollas are said to have been "lavender" on *Huber 345 & 403*, "pale-violet" on *Kostermans 26727*, and "blue" on *Nootboom 3204* and *Nootboom & Huber 3153*. *Nootboom 3204* exhibits leaves whose petioles have definite narrow wings although the specimen bears immature green fruit. On *Kostermans 26727* some of the leaves are galled. *Kostermans* reports the species "very common" in rather dry valleys, while *Nootboom* notes that its wood is "firstclass for window-frames". The reported local name for the tree is "mille".

Additional citations: SRI LANKA: *Huber 345* (W--2941747), *403* (W--2941670); *Kostermans 26727* (W--2868166), *27150* (Ac); *Nootboom 3204* (W--2890921); *Nootboom & Huber 3153* (W--2832979).

VITEX AMBONIENSIS Glrke

Additional bibliography: Bally, Kew Bull. Misc. Inf. 1937: 24. 1937; Mold., Phytologia 44: 385--386 & 390 (1979) and 45: 480. 1980; Mold., Phytol. Mem. 2: 224, 228, 231, 234, 236, 238, 241, 246, 366, & 588. 1980.

Bally (1937) records the vernacular name, "mtalali", for this species and asserts that the whole plant is used by the Swahili

to make an antidote for snakebite venom.

VITEX BOGALENSIS Wernham

Additional bibliography: Mold., *Phytologia* 44: 391--392. 1979; Mold., *Phytol. Mem.* 2: 214 & 588. 1980.

Additional citations: CAMEROONS: *Talbot 1046* [Mo. Bot. Gard. photo A.856 in part] (Go--photo of type, Z--photo of type).

VITEX BULUSANENSIS Elm.

Additional bibliography: Mold., *Phytologia* 44: 393 (1979) and 46: 466. 1980; Mold., *Phytol. Mem.* 2: 309 & 589. 1980.

It seems very probable that, when more material is available, this taxon may prove to be a member of the genus *Teijsmanniodendron*.

VITEX CAESPITOSA Exell

Additional bibliography: Mold., *Phytologia* 44: 394--395. 1979; Mold., *Phytol. Mem.* 2: 234 & 589. 1980.

Additional citations: ANGOLA: Luanda: *Gossweiler 3302* [Mo. Bot. Gard. photo A.8571] (Go--photo of type, Z--photo of type).

VITEX CALOTHYRSA Sandw.

Additional bibliography: Mold., *Phytologia* 45: 481. 1980; Mold., *Phytol. Mem.* 2: 121, 123, 125, 171, 457, & 589. 1980.

Recent collectors describe this plant as a tree, 3--15 m. tall, and have encountered it in forests, at 120 m. altitude, in flower in April and July, and in immature green fruit in July. The corollas on *Liesner 6985* are described as having been "white with a bluish tint and with a yellow patch on the lower lip" and on *Alencar 575* as "rose, the buds lilac".

Material of this species has been misidentified and distributed in some herbaria as *Bignoniaceae*.

Additional citations: BRAZIL: Amazonas: *Alencar 575* (Ld, N), *576* (Ld, N); *Liesner 6985* (Ld).

VITEX CANESCENS Kurz

Additional & emended bibliography: Fletcher, *Kew Bull. Misc. Inf.* 1938: 405, 431, & 433--434. 1938; Mold., *Phytologia* 44: 395--396. 1979; Mold., *Phytol. Mem.* 2: 266, 274, 280, 282, 287, 289, 290, 294, 327, 366, 458, & 589. 1980.

VITEX CAPITATA Vahl

Additional & emended bibliography: G. Don in Sweet, *Hort. Brit.*, ed. 3, 551. 1839; Mold., *Phytologia* 45: 481 (1980) and 46: 35. 1980; Mold., *Phytol. Mem.* 2: 104, 112, 121, 125, 171, 366, 430, 457, 460, & 589. 1980.

Recent collectors describe this species as a shrub, 2 m. tall, or a tree, 4--6 m. tall, the flowers visited by numerous bees, the mature fruit red, and have found it growing in disturbed sandy soil, at 140--900 m. altitude, flowering in February and April, in fruit in March. The corollas are said to have been "blue" on *Gentry & al. 11148* and "blue with white nectar-guides" on *Davidse & González 15628*.

[to be continued]